

## Technical data

|                                        |                                                                                           |  |       |
|----------------------------------------|-------------------------------------------------------------------------------------------|--|-------|
| technology description                 | Lithium ion battery system (NMC)                                                          |  |       |
| communication interface                | CAN-Bus   Ethernet                                                                        |  |       |
| nom. energy                            | 31.0 kWh                                                                                  |  |       |
| nom. voltage                           | 258.0 V $\approx$                                                                         |  |       |
| nom. capacity                          | 120.0 Ah                                                                                  |  |       |
| max. discharge power (at nom. voltage) | 49.6 kW                                                                                   |  |       |
| usable DoD                             | 100 %                                                                                     |  |       |
| expected cycles                        | (< 35 °C   70 % SOH)<br>> 6,500 @ 90 % DoD<br>> 10,000 @ 80 % DoD                         |  |       |
| expected operating life (calendric)    | > 12 years                                                                                |  |       |
| installation site                      | indoors   non-condensing                                                                  |  |       |
| IP Code                                | IP 20 (increasing IP Code by using optional accessories)                                  |  |       |
| protection class                       | 2                                                                                         |  |       |
| interconnection                        | 1P5S                                                                                      |  |       |
| standard scope of delivery             | energy storage block esbL62E                                                              |  | 5 qty |
|                                        | control unit ccuHV200U                                                                    |  | 1 qty |
|                                        | Rittal industry cabinet<br>(800 x 2,000 x 600 mm) excl. base                              |  | 1 qty |
|                                        | Accessories                                                                               |  |       |
|                                        |                                                                                           |  |       |
| weight                                 | approx. 366.0 kg                                                                          |  |       |
| EU directives                          | 2006/66/EG (BattG), 2014/30/EU (EMC), 2014/35/EU (LVD),<br>2011/65/EU, 2015/863/EU (RoHS) |  |       |
| norms and standards                    | DIN EN 62619, UN 38.3, DIN EN 61010-1, DIN EN 61000-6-2/4,<br>DIN EN ISO 13849-1          |  |       |

## Operating window

|                             |           |           |                                                                                                           |
|-----------------------------|-----------|-----------|-----------------------------------------------------------------------------------------------------------|
| operation mode              |           |           | guided by the State-of-Power (SoP) according to the specifications of the battery management system (BMS) |
| max. charge current         |           |           | 195.0 A (1.6C)                                                                                            |
| end-of-charge current       |           |           | 6.0 A (0.05C)                                                                                             |
| max. discharge current      |           |           | 195.0 A (1.6C)                                                                                            |
| rel. humidity               |           |           | < 80 % (temperature-dependent)   non-condensing                                                           |
| operating temperature range |           |           | -15 – 50 °C charge   -15 – 50 °C discharge                                                                |
| operating voltage range     |           |           | 218.0 – 291.0 V $\approx$                                                                                 |
| temperature range           | transport | < 1 month | -20 – 45 °C                                                                                               |
|                             | storage   | < 6 month | -20 – 25 °C                                                                                               |
| max. operating altitude     |           |           | 2,000 m above sea level                                                                                   |

 The user manual has to be strictly followed. The operating window of the battery has to be complied with.

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